

CHAPTER 4 SECTION 2.1

MAGNETIC RESONANCE IMAGING (MRI) AND MAGNETIC RESONANCE ANGIOGRAPHY (MRA)

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Authority: [32 CFR 199.4\(a\)](#), [\(b\)](#), and [\(c\)](#)

I. PROCEDURE CODES

MRI: 70336, 70540, 70551-70552, 70553, 71550, 72141-72142, 72146-72149, 72156-72158, 72196, 73220-73221, 73720-73721, 74181, 75552, 76400

MRA: 70541, 71555, 72159, 73225

II. DESCRIPTION

Magnetic resonance imaging (MRI), formerly also referred to as nuclear magnetic resonance (NMR), is a noninvasive method of graphically representing the distribution of water and other hydrogen-rich molecules in the human body. MRI uses radio frequency radiation in the presence of a carefully controlled magnetic field to produce high quality cross-sectional images of the head and body in any plane. These tomographic images represent the tissue being analyzed and the environment surrounding it. MRI has become a useful diagnostic imaging modality that is capable of demonstrating a wide variety of soft-tissue lesions with contrast resolution equal or superior to computerized tomography (CT) scanning in various parts of the body. Among the advantages of MRI are the absence of ionizing radiation and the ability to achieve high levels of tissue contrast resolution without injected iodinated contrast agents.

Magnetic Resonance Angiography (MRA) techniques generate contrast between flowing blood and surrounding tissue, and provide anatomic images that can be provided in a format similar to that of conventional x-ray angiography, and can also provide physiologic information.

III. POLICY

A. MRI with or without contrast media, is covered when medically necessary, appropriate, and the standard of care.

B. Open MRI, with or without contrast media, is covered when medically necessary, appropriate, and the standard of care.

C. MRA of the head and neck **is covered when used** to evaluate:

1. The carotid vessels of the head and neck.
2. Patients with vascular conditions of the head and neck, such as carotid stenosis, when surgery is anticipated and the MRA is used to decide whether surgery is appropriate.
3. Patients who cannot undergo x-ray angiography because the patients could have adverse reactions to conventional contrast agents.

D. The American College of Radiology (ACR) Monogram on Magnetic Resonance Imaging may be used as a guide to determine when the use of MRI is medically necessary, appropriate and the standard of care. However, coverage for MRI is not limited to those indications cited in the ACR Monogram. MRI for indications which are documented by reliable evidence as safe, effective, and comparable or superior to standard care (proven) is covered.

IV. EXCLUSIONS

A. MRI for unproven indications.

B. MRA for **unproven** indications.

V. EFFECTIVE DATE

A. The effective date for MRIs with contrast media is dependent on the FDA approval of the contrast media and a determination by the contractor of whether the labeled or unlabeled use of the contrast media is medically necessary and **a proven indication**.

B. October 1, 1994, for MRA.

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